Claims

1. A method of cutting through a tubular of a wellbore at a selected location in the wellbore using a remotely controlled electrically powered cutting tool that comprises (a) a tool body, (b) a cutting head provided with a cutting means, the cutting head being pivotally mounted on the tool body at or near the lower end thereof, and (c) an electrically actuatable means for pivoting the cutting head, the method comprising the steps of:

passing the cutting tool to the selected location in the wellbore with the longitudinal axis of the cutting head aligned with the longitudinal axis of the tool body;

electrically actuating the pivoting means to pivot the cutting head with respect to the tool body to a position where the cutting means of the cutting head is adjacent the wall of the tubular; and

actuating the cutting means to cut through the tubular of the wellbore.

2. A method as claimed in Claim 1 wherein the tool body is provided with a transversely extending fulcrum which pivotally supports the cutting head and the pivoting means pivots the cutting head about the transversely extending fulcrum to a position where the cutting means of the cutting head is adjacent the wall of the tubular.

3. A method as claimed in Claims 1 or 2 wherein the tubular is a hydrocarbon fluid production tubing, a casing or a liner of a wellbore.

4. A method as claimed in any one of the preceding claims wherein the cutting tool is passed to the selected location in the wellbore through the production tubing.

5. A method as claimed in any one of the preceding claims wherein the cutting tool further comprises a biasing means and the method comprises the further step of actuating the biasing means to urge the cutting means of the cutting head against the

wall of the tubular.

6. A method as claimed in Claim 5 wherein the biasing means is an elongate arm moveable between a retracted and an extended position and the cutting tool is passed to the selected location in the wellbore with the elongate arm in its retracted position and actuation of the means for pivoting the cutting head causes the elongate arm to pivot outwardly with respect to the tool body to its extended position to engage the wall of the tubular at a position opposite to the cutting means.

7. A method as claimed in Claim 6 wherein the elongate arm is an extension of the cutting head and in its retracted position lies within a longitudinal recess in the tool body.

8. A method as claimed in Claims 6 or 7 wherein the elongate arm is provided with a traction means at the location where the arm engages the wall of the tubular.

9. A method as claimed in any one of Claims 5 to 8 wherein the cutting head is a rotatable mill head provided with a mill cutter and the method further comprises the step of rotating the mill head so that the mill cutter cuts through the tubular.

10. A method as claimed in any one of Claims 1 to 4 wherein the cutting means is an ablation means or an erosion means.

11. A method as claimed in any one of the preceding claims wherein the cutting tool is passed to the selected location in the wellbore suspended from a cable, coiled tubing, or an electric drill string via a releasable connector.

12. A method as claimed in any one of the preceding claims wherein the cutting tool further comprises an anchoring means and the tool is locked in place at the selected location in the wellbore by setting the anchoring means prior to actuating the pivoting means.

13. A method as claimed in Claim 12 wherein the tool further comprises a stepper motor located below the anchoring means and after setting the anchoring means, the stepper motor is operated to rotate the tool body about its longitudinal axis while the cable, coiled tubing or electric drill string remains stationary thereby allowing the cutting head to be orientated in the wellbore prior to actuating the pivoting means.

14. A method as claimed in any one of the preceding claims wherein the cutting tool further comprises a traction means for moving the cutting tool in a longitudinal direction through the wellbore and the method further comprises the step of actuating the traction means to longitudinally extend the cut that is made through the tubular.

15. A remotely controlled electrically powered cutting tool for cutting through a tubular at a selected location in a wellbore, the tool comprising a tool body and a cutting head provided with a cutting means characterized in that the cutting head is pivotally mounted on the tool body at or near the lower end thereof, and the cutting tool further comprises an electrically actuated pivoting means for pivoting the cutting head with respect to the tool body from a first position where the longitudinal axis of the cutting head is aligned with the longitudinal axis of the tool body to a second position where the cutting means of the cutting head is adjacent the wall of the tubular.

16. A remotely controlled electrically powered milling tool for milling through a tubular at a selected location in a wellbore, the tool comprising a tool body and a rotatable mill head provided with a mill cutter characterized in that the mill head is pivotally mounted on the tool body at or near the lower end thereof and the milling tool further comprises (a) an electrically actuatable pivoting means for pivoting the mill head with respect to the tool body from a first position where the longitudinal axis of the mill head is aligned with the longitudinal axis of the tool body to a second position where the mill cutter engages with the wall of the casing, and (b) a biasing means for urging the mill cutter against the wall of the tubular.

17. A tool as claimed in Claims 15 or 16 wherein the cutting tool is provided with a transversely extending fulcrum on which the cutting head is pivotally mounted.

18. A tool as claimed in any one of Claims 15 to 17 wherein the tool body is provided with a releasable connector for a cable, coiled tubing or electric drill string.

19. A tool as claimed in any one of Claims 15 to 18 wherein the cutting tool is provided with an anchoring means for locking the tool in place in a wellbore.

20. A tool as claimed in Claim 19 wherein an electrically operated stepper motor is located at or near the upper end of the tool body at a position below the anchoring means.

21. A tool as claimed in any one of Claims 15 to 20 wherein the tool further comprises a traction means for moving the tool in a longitudinal direction through a wellbore.

22. A tool as claimed in Claim 21 wherein the traction means comprises (a) a connector for the cable, coiled tubing or electric drill string having at least one telescopic part comprising a section of tube that is capable of sliding into another section of tube and (b) independently operatable upper and a lower anchoring means

arranged on the connector above and below the telescopic part respectively.

23. A tool as claimed in Claim 22 wherein the upper and lower anchoring means each comprise a set of radially extendible rams.

24. A tool as claimed in any one of Claims 15 to 23 wherein a guide means having a radially extendible gripping member is releasably suspended from the tool.

25. A tool as claimed in any one of Claims 16 to 24 wherein a remotely controlled electrically powered motor is located within the tool body for rotating the mill head.